



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE

United States Patent and Trademark Office

Address: COMMISSIONER FOR PATENTS

P.O. Box 1450

Alexandria, Virginia 22313-1450

www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/782,399	02/18/2004	Miska Hannuksela	915-005.066-1	4342

4955 7590 05/17/2010  
WARE FRESSOLA VAN DER SLUYS & ADOLPHSON, LLP  
BRADFORD GREEN, BUILDING 5  
755 MAIN STREET, P O BOX 224  
MONROE, CT 06468

EXAMINER

ANYIKIRE, CHIKAODILI E

ART UNIT

PAPER NUMBER

2621

MAIL DATE

DELIVERY MODE

05/17/2010

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/782,399

**Applicant(s)**

HANNUKSELA, MISHA

**Examiner**

CHIKAODILI E. ANYIKIRE

**Art Unit**

2621

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 February 1010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 and 15-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 and 15-36 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 February 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB08)
- Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

1. This application is responsive to application number (10782399) filed on February 18, 2004. Claims 1-13 and 15-36 are pending and have been examined.

***Response to Arguments***

2. Applicant's arguments filed February 1, 2010 have been fully considered but they are not persuasive. Claims 1-13 and 15-36 are currently pending.

The applicant argues, that the variable,  $S_{\text{target}}$ , of Harumoto et al (US 2004/0004840, hereafter Harumoto) can not serve as the parameter of the present invention due to the parameter depending on transmission units (Remarks of February 1, 2010, page 10 lines 6 -9). The examiner respectfully disagrees. As understood by the examiner, Harumoto's parameter is dependent on the transmission capacity, which suggests that the transmissions units are also included in the consideration of the transmission capacity when determining  $S_{\text{target}}$ .

The applicant further argues that the maximum number Tomita (US 2002/0003799) teaches is different from the present invention (Remarks of February 1, 2010, page 11 lines 15 – 16). The examiner respectfully disagrees. Tomita is provided to teach that applying the maximum number of transmission units would have been art and known in the art. The order of transmission and the decoding order are known to be partly different due to the processing that needs to be done before displaying an image, which the transmission side of coding does not consider, but the decoding side does.

The relevant art as understood by the examiner shows that a parameter is defined indicative of the maximum number of data transmission units that precede any data transmission unit in a packet stream in the transmission order and follow the data transmission unit in decoding order is not novel to the art and has therefore is not patentable.

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
  2. Ascertaining the differences between the prior art and the claims at issue.
  3. Resolving the level of ordinary skill in the pertinent art.
  4. Considering objective evidence present in the application indicating obviousness or nonobviousness.
5. Claims 1, 4-6, and 9-18 rejected under 35 U.S.C. 103(a) as being unpatentable over Harumoto et al (US 2002/0004840) in view of Tomita (US 2002/0003799).

As per **claim 1**, as best understood by the Examiner, Harumoto et al disclose a method comprising:

receiving media data (Fig 3, 507; paragraph [0122] Ln 1-2), and

buffering the media data in a buffer (Fig 2, 505; paragraph [0117] Ln 7-8 and paragraph [0132] Ln 5; reference discloses media data being sent through a server such as video and audio),

the media data being included in data transmission units (paragraph [0117] Ln 7-11),

the data transmission units ordered in a transmission order which is at least partly different from a decoding order of the media data in the data transmission units (paragraph [0117] lines 7-11 and [0132] line 5) to be provided to a decoder to determine buffering requirements; and providing said parameter to a decoder to determine buffer requirements (paragraph [0132]; Harumoto teaches having a parameter,  $S_{\text{target}}$ , which is sent to a decoder and used as a means to determine the buffer requirements).

However, Harumoto et al does not explicitly teach wherein a parameter is defined indicative of the maximum number of data transmission units that precede any data transmission unit in a packet stream in the transmission order and follow the data transmission unit in decoding order.

In the same field of endeavor, Tomita discloses wherein a parameter is defined indicative of the maximum number of data transmission units that precede any data transmission unit in a packet stream in the transmission order and follow the data transmission unit in decoding order (paragraph [0058]; Tomita stores the transmission units and indicates a predetermined maximum amount of data in the packet bitstream).

Therefore, it would have been obvious for one having skill in the art at the time of the invention to modify the invention of Harumoto in view of Tomita. The advantage is providing an accurate synchronization between the RTP packet and the program reference clock (PCR).

Regarding **claim 4**, arguments analogous to those presented for claim 1 are applicable to claim 4.

As per **claim 4**, Harumoto et al disclose a method for decoding encoded picture stream in a decoder, wherein the encoded picture stream is received as data transmission units comprising media data (Fig 3, 508), buffering of transmission units is performed (Fig 3, 505 and 508, [0121] Ln 5-6 and [0122] Ln 2-3).

Regarding **claim 5**, arguments analogous to those presented for claim 1 are applicable to claim 5.

As per **claim 5**, Harumoto et al further disclose a system comprising an encoder for encoding pictures (Fig 2, [0117] Ln 8-11).

As per **claim 6**, Harumoto et al disclose the system according to claim 5, further comprising a decoder for decoding encoded pictures (Fig 3, 509, [0122] Ln 1-6), and a memory module for buffering decoded pictures (Fig 3, 511, [0122] Ln 2-7), wherein said parameter is arranged to be used for determining a required amount of memory places to be reserved from the memory for buffering decoded pictures ([0132]).

Regarding **claim 9**, arguments analogous to those presented for claim 1 are applicable to claim 9.

As per **claim 9**, Harumoto et al further disclose a transmitting device (Fig 2, 402), responsive to the encoded media stream, for transmitting the media stream in said data transmission units over a transmission medium or to a storage medium,(paragraph [0119]).

Regarding **claim 10**, further arguments analogous to those presented for claims 1 and 2 are applicable to claim 10.

As per **claim 10**, Harumoto et al disclose a receiving device (Fig 3, 507) for receiving encoded picture stream as transmission units ([0121] Ln 5-10).

As per **claim 11**, Harumoto et al disclose the receiving device (Fig 3, 507) according to claim 10, further comprising a memory module, and a definer for examining said parameter and for reserving memory places for buffering from said memory according to said parameter ([0121]-[0123] and [0132]).

As per **claim 12**, Harumoto et al disclose the receiving device (Fig 3, 507) according to claim 11, further comprising a decoder (Fig 3, 509) for decoding pictures from the received encoded picture stream ([0122] Ln 2-5), wherein the receiving device is configured for using the reserved memory places for buffering the encoded pictures ([0122]).

Regarding paragraph [0117] Ln 7-8, arguments analogous to those presented for claim 1 are applicable to claim 13.

As per **claim 13**, Harumoto et al further disclose a computer program product comprising machine executable steps for buffering encoded pictures ([0123]).

Regarding **claim 15**, arguments analogous to those presented for claims 1 and 10 are applicable to claim 15.



As per **claim 16**, Harumoto et al disclose a method, comprising the steps of: decoding media data in transmission units in a stream received over a transmission channel ([0122]), the transmission units ordered in a transmission order which is at least partly different from a decoding order thereof (paragraph [0119], [0122], and [0132]), and buffering said multimedia data according to a parameter indicative of a maximum amount of transmission units that precede and follow any transmission unit ([0132]).

Regarding **claim 17**, arguments analogous to those presented for claim 1 are applicable to claim 17.

Regarding **claim 18**, arguments analogous to those presented for claim 16 are applicable to claim 18.

As per **claim 19**, Harumoto et al disclose the method according to claim 1, wherein said media data comprises at least one of the following:

video data and audio data (paragraph [0117] Ln 7-8).

Regarding **claim 20**, arguments analogous to those presented for claim 11 are applicable for claim 20.

Regarding **claim 21**, arguments analogous to those presented for claim 12 are applicable for claim 21.

Regarding **claim 24**, arguments analogous to those presented for claims 4 and 13 are applicable for claim 24.

Regarding **claim 25**, arguments analogous to those presented for claim 1 are applicable for claim 25.

Regarding **claim 31**, arguments analogous to those presented for claim 5 are applicable for claim 31.

Regarding **claim 34**, arguments analogous to those presented for claim 4 are applicable for claim 34.

Regarding **claim 35**, arguments analogous to those presented for claim 6 are applicable for claim 35.

Regarding **claim 36**, arguments analogous to those presented for claim 6 are applicable for claim 36.

6. Claims 2-3, 7-8, and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Harumoto et al (US 2002/0004840) in view of Tomita (US 2002/0003799) in further view of Viscito et al (US 2004/0005007).

As per **claim 2**, the modified invention of Harumoto et al disclose the method according to claim 1.

However, the modified invention of Harumoto et al does not explicitly disclose wherein said multimedia data comprises a slice of an encoded picture.

In the same field of endeavor, Viscito et al discloses wherein said multimedia data comprises a slice of an encoded (Fig 2A, [0034]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Harumoto et al in accordance with the teachings of Viscito et al because it will perform buffering of the multimedia information in compliance with a methodology that is conventionally implemented in multimedia transmission and receiving.

As per **claim 3**, Harumoto et al disclose the method according to claim 1.

However, the modified invention of Harumoto et al does not explicitly disclose wherein said transmission unit comprising multimedia data is a VCL NAL unit.

In the same field of endeavor, Viscito et al discloses wherein said transmission unit comprising multimedia data is a VCL NAL unit (Fig 2B, [0034]).

Therefore, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Harumoto et al in accordance with the teachings of Viscito et al because it will perform buffering of the multimedia information in compliance with a methodology that is conventionally implemented in multimedia transmission and receiving.

Regarding **claim 7**, arguments analogous to those presented for claim 2 are applicable to claim 7.

Regarding **claim 8**, arguments analogous to those presented for claim 3 are applicable to claim 8.

Regarding **claim 22**, arguments analogous to those presented for claim 2 are applicable for claim 22.

Regarding **claim 23**, arguments analogous to those presented for claim 3 are applicable for claim 23.

Regarding **claim 26**, arguments analogous to those presented for claim 2 are applicable for claim 26.

Regarding **claim 27**, arguments analogous to those presented for claim 3 are applicable for claim 27.

As per **claim 28**, arguments analogous to those presented for claims 1 and 2 are applicable for claim 28.

Regarding **claim 29**, arguments analogous to those presented for claim 6 are applicable for claim 29.

Regarding **claim 30**, arguments analogous to those presented for claim 12 are applicable for claim 30.

Regarding **claim 32**, arguments analogous to those presented for claim 2 are applicable for claim 32.

Regarding **claim 33**, arguments analogous to those presented for claim 3 are applicable for claim 33.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chikaodili Anyikire whose telephone number is (571)270-1445. The examiner can normally be reached on Monday to Friday, 7:30 am to 5 pm, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marsha D. Banks-Harold can be reached on (571) 272 - 7905. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Marsha D. Banks-Harold/  
Supervisory Patent Examiner, Art Unit 2621  
/Chikaodili E. Anyikire/  
Patent Examiner AU 2621